

**Abstract of the Invention**

Exemplary mechanically-flattened fibers of the invention comprise generally  
5 elongate bodies having varied width or thickness dimensions and micro-diastrophic  
surface deformities. Preferred fibers are elongate synthetic polymer or multipolymer  
blend fibers for reinforcing matrix materials such as concrete, shotcrete, gypsum-  
containing materials, asphalt, plastic, rubber, and other matrix materials. Preferred  
methods for manufacturing such fibers comprise subjecting synthetic polymer fibers  
10 to compressive forces sufficient to achieve flattening and surface micro-diastrophism  
without substantially shredding and abrading the fibers. Further exemplary fibers and  
methods involve mechanically-flattening intertwined or braided fibers or fiber  
bundles, thereby providing fibers having physical impressions thereon of the  
intertwinement or braidingand, optionally though preferably of micro-diastrophic  
15 surface deformities.